

# **Improving Access to Data and Information Produced by Coastal Zone Management Act Programs: Gulf of Mexico Pilot Project**

## **NOAA Office of Ocean and Coastal Resource Management NOAA National Coastal Data Development Center**

### **PURPOSE AND SCOPE**

The National Coastal Data Development Center (NCDDC) and the Office of Ocean and Coastal Resource Management (OCRM) seek to improve access to information and data produced by projects funded through the Coastal Zone Management Act (CZMA). Information that is of interest to both organizations includes data and metadata generated by CZMA partners.

OCRM is interested in exploring efficient methods to facilitate access to coastal data and reports generated from CZMA funded projects, as well as additional data that support coastal management. NCDDC and OCRM will collaborate on a pilot project to provide NCDDC web-based metadata tools and training to selected coastal managers and to extend the capabilities of existing web-based management tools to meet the project management needs of OCRM. The pilot project will focus on providing these tools to coastal managers in the Gulf of Mexico.

The goals of the pilot project are to: 1) evaluate the usefulness and feasibility of providing web-based tools to coastal managers for recording metadata and project information and 2) demonstrate the value of entering and storing this information in a central database with distributed remote access.

### **BACKGROUND**

NOAA established the National Coastal Data Development Center to provide for access to and archive of the long-term coastal data record. To fulfill this mission, NCDDC establishes software links, or "gateways," to data maintained in internet-accessible electronic form by a geographically distributed group of federal, state, local, academic, non-profit, and commercial organizations involved in coastal science and management. NCDDC gateways enable coastal data users to search for and access data from multiple sources through a single portal, which can dramatically improve the ability of the coastal science and management community to conduct regional and national scientific studies. NCDDC has developed a web-accessible metadata creation and management tool based on open source software ([www.zope.com](http://www.zope.com)) that will allow geographically distributed data providers to create, publish, and manage metadata with minimal training using only an internet browser. NCDDC has expanded the use of this web-based content management framework to management of internal workflow processes and information. Originally intended to consolidate individual desktop databases and simplify management of information within NCDDC and among its four regional field offices, these applications can be customized to the meet needs of NCDDC partners in order to streamline management of data and information that both parties need.

### **Office of Ocean and Coastal Resource Management**

The Office of Ocean and Coastal Resource Management (OCRM) is responsible for administering the Coastal Zone Management Act of 1972 (CZMA) and is a leader on the Nation's coastal, estuarine and ocean management issues. OCRM is responsible for advancing national coastal management objectives and maintaining and strengthening state and territorial coastal management capabilities. OCRM supports states by providing financial assistance, mediation, technical services and information, as well as by participating in priority state, regional, and local forums. Three divisions within OCRM will participate in

this pilot project, as well as representatives from the programs that these divisions administer. The three programs include: Coastal Programs; National Estuarine Research Reserves; and National Policy and Evaluation.

OCRM tracks projects proposed in annual work plans using a database application, *Coastal and Marine Management Program* (CAMMP), but needs a process for capturing the results of projects. Some project results are maintained electronically, but many are maintained in hard copy only. This pilot project will be coordinated with CAMMP, which is being developed to manage the grant application process.

### **Coastal Zone Management Program**

State coastal management programs work with the Coastal Programs Division (CPD) to develop an annual work plan to implement their federally approved programs. This work plan includes projects under several legislative programs, usually coordinated under the CZMA; programs include the CZM Program, Coastal Zone Enhancement Grants, and Coastal Nonpoint Pollution Control Program. Implementation is achieved through projects that range from on-the-ground actions such as habitat restoration to resource management through regulatory programs. Data collected by the state programs can include permitting decisions, resource areas, land use, water quality, and other resource management data that support the program. CPD needs a mechanism for feeding data from projects back to other state managers and integrating this data with data from other federal agencies. This will aid CPD in identifying regional trends and issues and tracking the effectiveness of CZMA projects.

Additional state work plans are developed with OCRM for the Coastal and Estuarine Land Protection Program, Coastal Impact Assistance Program, and other programs that are created by Congress. These additional work plans will be incorporated into the pilot project as appropriate.

### **National Estuarine Research Reserve Program**

The Estuarine Reserves Division (ERD) of OCRM is responsible for administering the National Estuarine Research Reserve System (NERRS) and co-directing the Cooperative Institute for Coastal and Estuarine Environmental Technology (CICEET). The National Estuarine Research Reserve System was created in 1972 by the CZMA to provide a network of protected areas representing different biogeographic regions of the United States that are protected for long-term research, monitoring, education and coastal stewardship. The reserve system is a federal-state partnership program that addresses natural resource management issues, such as non-point source pollution, habitat conservation and restoration and invasive species, through integrated research and education. The reserve system currently conducts three system-wide programs to address these natural resource issues including the System-wide Monitoring Program, the Coastal Training Program and the Graduate Research Fellowship Program. The reserves also conduct research, education and stewardship activities that address priority local resource issues.

Each of the 26 reserves participates in the System-wide Monitoring Program to collect weather and water quality data that is then submitted to the NERRS Centralized Data Management Office (CDMO) for quality assurance/control and posting to the Web. Each reserve also maintains base, geographic information system (GIS) data layers. These data have associated metadata, though they are not all in a Federal Geographic Data Committee standard format. Publishing FGDC-compliant metadata from the NERRS System-wide Monitoring Program would make this metadata searchable through the National Spatial Data Infrastructure and would make the data available to a wider audience.

## **National Policy and Evaluation**

The National Policy and Evaluation Division (NPED) is leading the OCRM effort to develop a national performance measurement system that will require both CZM and NERRS programs to collect and report data for common environmental and programmatic indicators. The NCDDC tools will be evaluated to determine if they can provide a structure for states to provide information that could be used by OCRM to report on national progress towards CZMA goals. For the NCDDC pilot project a small set of draft indicators could be used to test the tools.

The CZMA under section 312 requires periodic evaluation of both CZM and NERRS programs. The resulting evaluation findings include accomplishments and recommendations that the programs must address. NPED works with CPD and ERD to monitor progress made by the CZM and NERRS programs in meeting requirements established in the evaluation. The NCDDC web-based management tools could be used to better capture and provide access to the findings documents. Likewise, these tools will help OCRM more effectively track and ensure response to the recommendations by the programs, and will help facilitate OCRM's support of common program challenges.

## **Work Plan**

The OCRM divisions will work cooperatively to:

- 1) Identify and coordinate with interested participants from state Coastal Programs and NERRS in the Gulf of Mexico;
- 2) Define OCRM requirements for web-based project management databases for CZM programs, the System-wide Monitoring Program; performance indicators, and Section 312 evaluations;
- 3) Provide data collected by OCRM programs; and
- 4) Document results of the pilot project in a project report that will be presented to interested parties.

NCDDC will:

- 1) Provide pilot project participants with metadata training and access to the NCDDC Metadata Enterprise Resource Management Aid (MERMAid) web-based metadata tool.
- 2) Develop web-based project management information databases as required
- 3) Develop procedures and processes for archive of data provided by OCRM.

NCDDC and OCRM agree to conduct this pilot project as time and resources permit. No schedule or due dates for the deliverables will be established at this time, though the bulk of the pilot project is expected to be complete within six months. Additional evaluations may be conducted as long as twelve months after the start, depending on the timing of participants' individual project schedules.

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